

REMARKS

Claims 1-25 are pending in the present application, were examined, and stand rejected. Claims 1, 5, 7, 9-12, 15, 16, 18-21 and 24-25 are amended, Claims 2-4, 8, 13, 14, 17 and 22-23 are cancelled and Claims 26-30 are added. Applicant reserves the right to prosecute the former claims in a divisional or continuation application. Applicant respectfully requests reconsideration of pending Claims 1, 5-7, 9-12, 15, 16, 18-21, and 24-28, as amended and in view of at least the following remarks.

I. Claim Objections

Applicant has amended Claim 1 to provide essential structural cooperative relationship between the elements in compliance with MPEP §2172.01. Accordingly, based on Applicant's amendment of Claim 1, Applicant respectfully submits that Claim 1 is in compliance with 35 U.S.C. §112, second paragraph, by particularly pointing out and distinctly claiming the subject matter, which Applicant regards as the invention. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the 35 U.S.C. §112, second paragraph, rejection of Claims 1, 5, 7, 9 and 10.

II. Claims Rejected Under 35 U.S.C. §102

The Patent Office has rejected Claims 1-25 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,545,489 issued to Frank, Jr. et al. ("Frank"). Applicant respectfully traverses this rejection.

Applicant respectfully asserts that the Examiner has failed to adequately set forth a *prima facie* rejection under 35 U.S.C. §102(b). "Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*" *Lindemann Maschinenfabrik v. American Hoist & Derrick* ("Lindemann"), 730 F.2d 452, 1458 (Fed. Cir. 1994)(emphasis added). Additionally, each and every element of the claim must be exactly disclosed in the anticipatory reference. *Titanium Metals Corp. of American v. Banner* ("Banner Titanium"), 778 F.2d 775, 777 (Fed. Cir. 1985).

Claim 1, as amended, includes the following claim feature, which is neither taught nor suggested by either Frank or the references of record:

a protected storage medium configured to enable secure exchange of a protected message between the pre-operating system software program and the operating system present software program.

Applicant submits that Frank fails to teach the secure exchange of protected messages between pre-operating system software and post-operating system software, as required by Claim 1, as amended. By way of contrast, Frank describes a system for fast restoration of a complete operating image in computer system memory, which is secure from attack by a virus or inadvertent corruption during operation of the computer. (Col. 1, lines 10–13.) According to Frank:

The portion of the storage capacity on disks 303 is partitioned to provide a protected area . . . known to the disk control program but are inaccessible to host computer 330 . . . is sufficient to store an image source 304 suitable to recreate a fully functional operating image in memory 340. (Col. 5, lines 34-40.)

A host memory image may be pre-loaded with a host memory image source in a protect area on the disk as illustrated in FIG. 4. (See col. 7, lines 8–10). Update of the host memory image may be performed by drive microprocessor 310. (See col. 7, lines 23-37.)

Accordingly, the memory image contained within the protected area is not a protected message as required by Claim 1. Further, memory image is written by a drive micro-processor and not by a pre-operating system software program, as required by Claim 1.

A method for reading a memory image from within the protected memory area is described with reference to FIG. 7. As is further described,

Following a power-up sequence, host interface controller 320 asserts state control signal 337 . . . causing host microprocessor 332 to be maintained in an inactive state, such as a reset or hold.

After state control signal is asserted, drive microprocessor 310, executing code in boot control ROM 322 reads a host memory image source 304 from the . . . protected area of disk 303 . . . for writing into memory array 340. (Col. 5, lines 43-51.)

Accordingly, reading of memory image source 304 by drive micro-processor 310 is not secure exchange of a protected message as required by Claim 1. Furthermore, as indicated by Frank:

there is no requirement for a BIOS ROM and host computer 330 and overall no opportunity for a virus to contaminate the operating image stored on disk. (Col. 6, lines 4-10.)

Accordingly, by eliminating a BIOS ROM (pre-operating system present software program), Frank fails to teach or suggest the protected storage medium configured to enable secure exchange of a protected message between pre-operating system software program and the operating system present software program, as required by Claim 1, as amended.

Consequently, for at least the reasons described above, Applicant submits that the amendment of Claim 1 to provide secure exchange of protected messages between the pre-operating system software program and the operating system present software program prohibits the Examiner from establishing anticipation of Claim 1, as amended, over Frank. Accordingly, Applicant submits that Claim 1, as amended, is patentable over Frank, as well as the references of record.

Regarding Claims 5, 7, 9 and 10, Claims 5, 7, 9 and 10 depend from Claim 1 and therefore include the patentable claim features of Claim 1. Accordingly, Claims 5, 7, 9 and 10, based on their dependency from Claim 1, are patentable over Frank, as well as the references of record. Consequently, Applicant respectfully requests the Examiner reconsider and withdraw the §102(e) rejection of Claims 5, 7, 9 and 10.

Regarding Claims 11 and 21, Claims 11 and 21 include the following claim feature, which is neither taught nor suggested by the references of record:

enabling the pre-operating system software program to store a protected message for the operating system present software program within the protected storage medium; and

providing a second interface to the protected storage medium to enable the operating system present software program to access the protected storage medium to enable secure exchange of the protected message between the pre-operating system software program and the operating system present software program.

As indicated above, Frank requires storing image source 304 within a protect area, and therefore fails to teach or suggest storage of a protected message within a protected storage medium, as required by Claims 11 and 21, to enable an efficient and fully secure boot load of computer system 300. Furthermore, reading of the image source 304 from the protected area of disks 303 by drive microprocessor 310 fails to teach or suggest the secure exchange of protected messages between pre-operating system software programs and operating systems present software programs, as required by Claims 11 and 21, as amended.

Accordingly, Applicant submits that the amendment to Claims 11 and 21 to enable secure exchange of a protected message between the pre-operating system software program and the operating system present software program prohibits the Examiner from establishing a *prima facie* case of anticipation of Claims 11 and 21, as amended, over Frank. Consequently, Applicant respectfully requests the Examiner reconsider and withdraw the §102(e) rejection of Claims 11 and 21.

Regarding Claims 12, 15, 16 and 18-20, Claims 12, 15, 16 and 18-20 depend from Claim 11 and therefore include each of the patentable claim features of Claim 11, as described above. Accordingly, Claims 12, 15, 16, and 18-20, based on their dependency from Claim 11, are patentable over Frank, as well as the references of record. Consequently, Applicant respectfully requests the Examiner reconsider and withdraw the §102(e) rejection of Claims 12, 15, 16 and 18-20.

Regarding Claims 24 and 25, Claims 24 and 25 depend from Claim 21 and therefore include the patentable claim features of Claim 21. Accordingly, Claims 24 and 25, based on their dependency from Claim 21, and for at least the reasons described above, are patentable over the references of record. Consequently, Applicant respectfully requests that the Examiner reconsider and withdraw the §102(e) rejection of Claims 24 and 25.

Regarding new Claim 26, new Claims 26, based on its dependency from Claim 21, is also patentable over Frank, as well as the references of record.

Regarding new Claims 27 and 28, new Claims 27 and 28, based on their dependency from Claim 11, are also patentable over Frank, as well as the references of record.

Regarding new Claims 29 and 30, new Claims 29 and 30, based on their dependency from Claim 21, are also patentable over Frank, as well as the references of record.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending (1) are in proper form, (2) are neither obvious nor anticipated by the relied upon art of record, and (3) are in condition for allowance. A Notice of Allowance is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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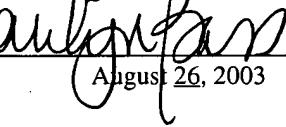
Dated: August 26, 2003

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on August 26, 2003


Marilyn Bass

August 26, 2003